

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

JP
PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/B2005/000597

International filing date (day/month/year)
07.03.2005

Priority date (day/month/year)
18.03.2004

International Patent Classification (IPC) or both national classification and IPC
C07D231/40, C07D231/42, C07D231/50, C07D401/12, C07D417/04, C07D403/12, C07D413/12, C07D417/12,

Applicant
PFIZER LIMITED

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☒ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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10/593133

**WRITTEN OPINION OF THE
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Box No. I Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

Box No. II Priority

1. ☒ The validity of the priority claim has not been considered because the International Searching Authority does not have in its possession a copy of the earlier application whose priority has been claimed or, where required, a translation of that earlier application. This opinion has nevertheless been established on the assumption that the relevant date (Rules 43bis.1 and 64.1) is the claimed priority date.
2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

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Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

- ☐ the entire international application,
- ☒ claims Nos. 15 (as to industrial applicability only)

because:

- ☒ the said international application, or the said claims Nos. 15 relate to the following subject matter which does not require an international preliminary examination (*specify*):

see separate sheet

- ☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):
- ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
- ☐ no international search report has been established for the whole application or for said claims Nos.
- ☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:
 - the written form ☐ has not been furnished
 - ☐ does not comply with the standard
 - the computer readable form ☐ has not been furnished
 - ☐ does not comply with the standard
- ☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-bis of the Administrative Instructions.
- ☐ See separate sheet for further details

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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or
Industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	2, 4, 11
	No: Claims	1, 3, 5-10, 12-15
Inventive step (IS)	Yes: Claims	-
	No: Claims	1-15
Industrial applicability (IA)	Yes: Claims	1-14
	No: Claims	-

2. Citations and explanations

see separate sheet

Box No. VI Certain documents cited

1. Certain published documents (Rules 43bis.1 and 70.10)

and /or

2. Non-written disclosures (Rules 43bis.1 and 70.9)

see form 210

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Re Item III:

Claim 15 relates to subject-matter considered by this Authority to be covered by the provisions of Rule 67.1(iv) PCT. Consequently, no opinion will be formulated with respect to the industrial applicability of the subject-matter of this claim (Article 34(4)(a)(I) PCT).

Re Item V.**Reference is made to the following documents:**

- D01 : EP 1 319 657 A (NIHON NOHYAKU CO., LTD.) 18 June 2003 (2003-06-18)
D02 : DE 195 11 269 A (CIBA-GEIGY AG) 5 October 1995 (1995-10-05)
D03 : DATABASE WPI, Section Ch, Week 199340, Derwent Publications Ltd., London, GB; Class C02, AN 1993-317444, XP002330928 (JP 05 230029 A (UBE IND LTD) 7 September 1993 (1993-09-07))
D04 : DATABASE CAPLUS, CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; XP002330924, Database accession no. 1965:431646
D05 : DATABASE CAPLUS, CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; XP002330925, Database accession no. 1969:36415
D06 : DATABASE CAPLUS, CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; XP002330926, Database accession no. 1964:3141
D07 : DATABASE CROSSFIRE, BEILSTEIN INSTITUT ZUR FOERDERUNG DER CHEMISCHEN WISSENSCHAFTEN; XP002330927
D08 : GUARNERI M ET AL: "Contributo alla conoscenza di pirazolsulfonamidi" ANNALI DI CHIMICA, vol. 49, 1959, pages 958-963, XP008048105
D09 : KOCH A ET AL: "QSAR and molecular modelling for a series of isomeric X-sulfanilamido-1-phenylpyrazoles" QUANTITATIVE STRUCTURE-ACTIVITY RELATIONSHIPS, vol. 12, no. 4, 1993, pages 373-382, XP008048108
D10 : ALBERTI C ET AL: "Sulfanilamidi pirazoliche. Nota VIII" FARMACO, EDIZIONE SCIENTIFICA, vol. 21, no. 12, 1966, pages 883-891, XP008048107
D11 : ALBERTI C ET AL: "Sulfanilamidi pirazoliche. Nota VI" FARMACO, EDIZIONE SCIENTIFICA, vol. 19, no. 7, 1964, pages 618-637, XP008048116
D12 : ALBERTI C ET AL: "Sulfanilamidi pirazoliche. Nota V" FARMACO, EDIZIONE

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- SCIENTIFICA, vol. 19, no. 5, 1964, pages 459-473, XP008048115
- D13 : ALBERTI C ET AL: "Sulfanilamidi pirazoliche. Nota IV" FARMACO, EDIZIONE SCIENTIFICA, vol. 17, no. 6, 1962, pages 460-467, XP008048106
- D14 : ALBERTI C ET AL: "Sulanilamidi pirazoliche. Nota XIII" FARMACO, EDIZIONE SCIENTIFICA, vol. 29, no. 12, 1974, pages 957-966, XP002330922
- D15 : ALBERTI C ET ET: "Sulfanilamidi pirazoliche. Nota XI" FARMACO, EDIZIONE SCIENTIFICA, vol. 26, no. 1, 1971, pages 66-88, XP002330923
- D16 : FUSCO R ET AL: "Sintesi e proprieta' farmacologiche di composti pirazolici. Nota I" FARMACO, EDIZIONE SCIENTIFICA, vol. 23, no. 19, 1968, pages 919-944, XP001085259

Novelty (Article 33(2) PCT)

The subject-matter of claims 1, 3, 5-10 and 12-15 lacks novelty in the light of the disclosure of

D4-D7,

D8 (see page 959),

D9 (see compounds of the 4-Series(IV)),

D10 (see page 885, compounds Ia-Ic and II),

D11 (see page 620, compounds Iia-IIg),

D12 (see page 461, compound II with R = H),

D13 (see page 461, compounds II and III),

D14 (see page 959, compounds II, Iia-IIc),

D15 (see page 68, compounds Iia-IIc) and

D16 (see page 921, table I).

Inventive step (Article 33(3) PCT)

The subject-matter of claims 1, 3, 5-10 and 12-15 which lacks novelty does not offer a basis for acknowledging an inventive step.

The novel subject-matter of claims 1, 3, 5-10 and 12-15, and the subject-matter of claims 2 and 4, does not involve an inventive step:

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D1, which is considered to represent the closest prior art, describes N-(4-pyrazolyl) amides useful as insecticides or nematocides, see in particular claims 1 and 10.

In the light of the disclosure of D1 the problem underlying the present application can be seen in the provision of further pesticides.

To solve this problem, the present application proposes to replace the amide group of the compounds of D1 by a sulphonamide group.

Such a structural modification is however an obvious measure in the design of further pesticidal compounds, particularly in view of the teachings of D2 (see the definition of R_3) and of D3 (see example 8), which does not involve an inventive step in the absence of substantiated, directly resulting, unexpected effects.

Industrial applicability (Article 33(4) PCT)

The compounds, compositions and methods of claims 1-14 can be applied in the chemical industry.

For the assessment of the present claim on the question whether it is industrially applicable, no unified criteria exist in the PCT Contracting States.

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